

Title (en)

Copolymer-grafted polyolefin substrate having antimicrobial properties and method for grafting

Title (de)

Copolymer-gepfropftes Polyolefinsubstrat mit antimikrobiellen Eigenschaften und Pfropfungsverfahren

Title (fr)

Substrat de polyoléfine copolymère greffée doté de propriétés antimicrobiennes et procédé de greffage

Publication

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Application

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Priority

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Abstract (en)

The present invention concerns a method for grafting a copolymer onto a polyolefin substrate. The method comprises the following steps: (a) irradiating the said substrate with ionizing radiation to obtain an activated polyolefin substrate, (b) bringing into contact the activated polyolefin substrate with a mixture of at least two compounds in distilled water comprising: (i) from 10 to 40% by volume, related to the total volume of the reaction medium, of a hydrophilic unsaturated monomer selected from monomers having the formula: wherein R 1 is H or methyl, R 2 is -COOH, -NH 2, -CON(R 3) 2, and R 3 is H or methyl, (ii) from 20 to 50% by volume, related to the total volume of the reaction medium, of an antimicrobial agent having an average molecular weight of at least 200 g.mol⁻¹, to thereby form a copolymer-grafted polyolefin substrate. The invention also relates to copolymer-grafted polyolefin substrates obtained by this method and to a packaging material comprising copolymer-grafted polyolefin substrate according to the invention.

IPC 8 full level

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Citation (search report)

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